Amendments to the Claims

Please cancel Claims 1, 6, 11, 13, 17, 19, 22, 25, 26, 28, 35, 37 and 39-43. Claims 7-10 were previously canceled. Please amend Claims 2-5, 12, 14, 16, 18, 20, 23, 24, 27, 29-34, 36, 38 and 46-49. The Claim Listing below will replace all prior versions of the claims in the application:

Claim Listing

1. (Canceled)

2. (Currently amended) The antibody or antigen-binding fragment according to Claim 4 [[1]], wherein said antibody or antigen-binding fragment thereof inhibits one or more functions associated with binding of the ligand to the receptor.

3. (Currently amended) The antibody or antigen-binding fragment thereof according to Claim 4 [[1]], wherein the mammalian CC-chemokine receptor 4 (CCR4) is a human CC-chemokine receptor 4 (CCR4).

4. (Currently amended) An antibody or antigen-binding fragment thereof which binds to a mammalian CC-chemokine receptor 4 (CCR4) or portion of said receptor, wherein said antibody or antigen-binding fragment thereof inhibits binding of a ligand to the receptor, and ~~The antibody or antigen-binding fragment thereof according to Claim 1,~~ wherein the antibody is selected from the group consisting of:

~~a) monoclonal antibody 1G1;~~

~~b) an antibody which can compete with 1G1 for binding to mammalian CC-chemokine receptor 4 (CCR4);~~

~~c) monoclonal antibody 2B10;~~

~~d) an antibody which can compete with 2B10 for binding to mammalian CC-chemokine receptor 4 (CCR4);~~

a ~~e)~~ monoclonal antibody 10E4;

b) ~~f)~~ an antibody which can compete with 10E4 for binding to mammalian CC-chemokine receptor 4 (CCR4); and

c) ~~g)~~ an antigen-binding fragment of ~~any one of~~ (a) ~~through (f)~~ or b) which binds to mammalian CC-chemokine receptor 4 (CCR4) or a portion thereof.

5. (Currently amended) The antibody or antigen-binding fragment thereof according to Claim 4 [[1]], wherein the ligand is a chemokine.

6-11. (Canceled)

12. (Currently amended) A test kit for use in detecting the presence of a mammalian CC-chemokine receptor 4 (CCR4) or portion thereof in a biological sample comprising:

a) at least one antibody or antigen-binding fragment thereof which binds to a mammalian CC-chemokine receptor 4 (CCR4) or portion of said receptor, wherein said antibody or antigen-binding fragment thereof inhibits binding of a ligand to the receptor, and ~~The test kit according to Claim 11,~~ wherein the antibody is selected from the group consisting of:

~~i) monoclonal antibody 1G1;~~

~~ii) an antibody which can compete with 1G1 for binding to mammalian CC-chemokine receptor 4 (CCR4);~~

~~iii) monoclonal antibody 2B10;~~

~~iv) an antibody which can compete with 2B10 for binding to mammalian CC-chemokine receptor 4 (CCR4);~~

i)~~v)~~ monoclonal antibody 10E4;

ii)~~vi)~~ an antibody which can compete with 10E4 for binding to mammalian CC-chemokine receptor 4 (CCR4);

iii)~~vii)~~ an antigen-binding fragment of ~~any one of~~ (i) or (ii) ~~through (vi)~~ which binds to mammalian CC-chemokine receptor 4 (CCR4) or a portion thereof; and

iv)~~viii)~~combinations of the foregoing[[.]];

and

b) one or more ancillary reagents suitable for detecting the presence of a complex between said antibody or antigen-binding fragment thereof and said mammalian CC-chemokine receptor 4 (CCR4) or a portion thereof.

13. (Canceled)

14. (Currently amended) The method according to Claim 18 [[13]], wherein the cell is selected from the group consisting of lymphocytes, monocytes, granulocytes, T cells, basophils, and cells comprising a recombinant nucleic acid encoding CCR4 or a portion thereof.

15. (Previously presented) The method according to Claim 14, wherein the T cells are selected from the group consisting of CD8+ cells, CD25+ cells, CD4+ cells and CD45RO+ cells.

16. (Currently amended) The method according to Claim 18 [[13]], wherein the ligand is a chemokine.

17. (Canceled)

18. (Currently amended) A method of inhibiting the interaction of a cell bearing mammalian CC-chemokine receptor 4 (CCR4) with a ligand thereof, comprising contacting said cell with an effective amount of an antibody or antigen-binding fragment thereof which binds to mammalian CC-chemokine receptor 4 (CCR4) or portion of said receptor and inhibits binding of said ligand to the receptor, and ~~The method according to Claim 13,~~ wherein the antibody or antigen-binding fragment thereof is selected from the group consisting of:

a) monoclonal antibody 1G1;

b) an antibody which can compete with 1G1 for binding to mammalian CC-chemokine receptor 4 (CCR4);

c) monoclonal antibody 2B10;

d) an antibody which can compete with 2B10 for binding to mammalian CC-chemokine receptor 4 (CCR4);

e) monoclonal antibody 10E4;

f) an antibody which can compete with 10E4 for binding to mammalian CC-chemokine receptor 4 (CCR4);

g) an antigen-binding fragment of any one of (a) through (f) which binds to mammalian CC-chemokine receptor 4 (CCR4) or a portion thereof; and

h) combinations of the foregoing.

19. (Canceled)

20. (Currently amended) A method of detecting expression of mammalian CC-chemokine receptor 4 (CCR4) or portion thereof by a cell or fraction of said cell, comprising:

a) contacting a composition comprising a cell or fraction of said cell to be tested with an antibody or antigen-binding fragment thereof which binds to mammalian CC-chemokine receptor 4 (CCR4) or portion of said receptor and inhibits binding of a ligand to the receptor, under conditions appropriate for binding of said antibody or antigen-binding fragment thereof to a mammalian CCR4 or portion thereof; and

b) detecting binding of said antibody or antigen-binding fragment thereof, wherein the binding of said antibody or antigen-binding fragment thereof indicates the presence of said receptor or portion of said receptor on said cell, and ~~The method according to Claim 19,~~ wherein the antibody or antigen-binding fragment thereof is selected from the group consisting of:

i) monoclonal antibody 1G1;

ii) an antibody which can compete with 1G1 for binding to mammalian CC-chemokine receptor 4 (CCR4);

iii) monoclonal antibody 2B10;

iv) an antibody which can compete with 2B10 for binding to mammalian CC-chemokine receptor 4 (CCR4);

v) monoclonal antibody 10E4;

vi) an antibody which can compete with 10E4 for binding to mammalian CC-chemokine receptor 4 (CCR4);

vii) an antigen binding fragment of any one of (i) through (vi) which binds mammalian CC-chemokine receptor 4 (CCR4) or a portion thereof; and

viii) combinations of the foregoing.

21. (Original) The method according to Claim 20, wherein the composition is a sample comprising human cells.

22. (Canceled)

23. (Currently amended) A method of detecting a mammalian CC-chemokine receptor 4 (CCR4) or portion of said receptor, comprising:

a) contacting a sample to be tested with an antibody or antigen-binding fragment thereof which binds to mammalian CC-chemokine receptor 4 (CCR4) or portion of said receptor and inhibits binding of a ligand to the receptor under conditions appropriate for binding of said antibody or fragment thereof to said mammalian CCR4 or portion thereof; and

b) detecting or measuring binding of said antibody or antigen-binding fragment thereof, wherein the binding of said antibody or antigen-binding fragment thereof to material in said sample is indicative of the presence of a mammalian CC-chemokine receptor 4 (CCR4) or portion of said receptor in said sample, and ~~The method according to Claim 22,~~ wherein the antibody or antigen-binding fragment thereof is selected from the group consisting of:

i) monoclonal antibody 1G1;

ii) an antibody which can compete with 1G1 for binding to mammalian CC-chemokine receptor 4 (CCR4);

iii) monoclonal antibody 2B10;

iv ~~vi)~~ an antibody which can compete with 2B10 for binding to mammalian CC-chemokine receptor 4 (CCR4);

v) monoclonal antibody 10E4;

vi) an antibody which can compete with 10E4 for binding to mammalian CC-chemokine receptor 4 (CCR4);

vii) an antigen-binding fragment of any one of (i) through (vi) which binds to mammalian CC-chemokine receptor 4 (CCR4) or a portion thereof; and

viii) combinations of the foregoing.

24. (Currently amended) The method according to Claim 23 [[22]], wherein the sample is a cellular fraction which, in normal individuals, comprises a mammalian CC-chemokine receptor 4 (CCR4) or portion of said receptor.

25. (Canceled)

26. (Canceled)

27. (Currently amended) A method of inhibiting a function associated with binding of a chemokine to a mammalian CC-chemokine receptor 4 (CCR4) or a functional portion of said receptor, comprising contacting a composition comprising the receptor or portion with an effective amount of an antibody or antigen-binding fragment thereof which binds to a mammalian CC-chemokine receptor 4 (CCR4) or portion of said receptor, wherein said antibody or fragment inhibits binding of said chemokine to mammalian CC-chemokine receptor 4 (CCR4) and inhibits one or more functions associated with binding of the chemokine to the receptor, and ~~The method according to Claim 25,~~ wherein the antibody or antigen-binding fragment is selected from the group consisting of:

a) monoclonal antibody 1G1;

b) an antibody which can compete with 1G1 for binding to mammalian CC-chemokine receptor 4 (CCR4);

c) monoclonal antibody 2B10;

d) an antibody which can compete with 2B10 for binding to mammalian CC-chemokine receptor 4 (CCR4);

e) monoclonal antibody 10E4;

f) an antibody which can compete with 10E4 for binding to mammalian CC-chemokine receptor 4 (CCR4);

g) an antigen-binding fragment of any of (a) through (f) which binds to mammalian CC-chemokine receptor 4 (CCR4) or a portion thereof; and

h) combinations of the foregoing.

28. (Canceled)

29. (Currently amended) A method of detecting or identifying an agent which binds a mammalian CC-chemokine receptor 4 (CCR4) or ligand-binding variant thereof, comprising combining:

a) an agent to be tested;

b) an antibody or antigen-binding fragment which binds to a mammalian CC-chemokine receptor 4 (CCR4) or portion of said receptor, wherein said antibody or antigen-binding fragment thereof inhibits binding of a ligand to the receptor, and ~~The method according to Claim 28,~~ wherein the antibody or antigen-binding fragment thereof is selected from the group consisting of:

i) ~~a)~~ monoclonal antibody 1G1;

ii) ~~b)~~ an antibody which can compete with 1G1 for binding to mammalian CC-chemokine receptor 4 (CCR4);

iii) ~~c)~~ monoclonal antibody 2B10;

iv) ~~d)~~ an antibody which can compete with 2B10 for binding to mammalian CC-chemokine receptor 4 (CCR4);

v) ~~e)~~ monoclonal antibody 10E4;

vi) ~~f)~~ an antibody which can compete with 10E4 for binding to mammalian CC-chemokine receptor 4 (CCR4);

vii) ~~g)~~ an antigen-binding fragment of any of (i) ~~(a)~~ through (vi) ~~(f)~~ which binds to mammalian CC-chemokine receptor 4 (CCR4) or a portion thereof; and

viii) ~~h)~~ combinations of the foregoing;

and

c) a composition comprising a mammalian CC-chemokine receptor 4 (CCR4) or a ligand-binding variant thereof,

under conditions suitable for binding of said antibody or antigen-binding fragment to said mammalian CC-chemokine receptor 4 (CCR4) or ligand-binding variant thereof, and detecting or measuring binding of said antibody or antigen-binding fragment to said mammalian CC-chemokine receptor 4 (CCR4) or ligand-binding variant thereof.

30. (Currently amended) The method according to Claim 29 [[28]], wherein the formation of a complex between said antibody or antigen-binding fragment and said mammalian CC-chemokine receptor 4 (CCR4) or ligand-binding variant is monitored, and wherein a decrease in the amount of complex formed relative to a suitable control is indicative that the agent binds said receptor or ligand-binding variant thereof.

31. (Currently amended) The method according to Claim 29 [[28]], wherein the composition comprising a mammalian CC-chemokine receptor 4 (CCR4) or a ligand-binding variant thereof is a cell bearing recombinant CC-chemokine receptor 4 (CCR4) or ligand-binding variant thereof.

32. (Currently amended) The method according to Claim 29 [[28]], wherein the composition comprising a mammalian CC-chemokine receptor 4 (CCR4) or a ligand-binding variant thereof is a membrane fraction of said cell bearing recombinant CC-chemokine receptor 4 (CCR4) or ligand-binding variant thereof.

33. (Currently amended) The method according to Claim 29 [[28]], wherein the antibody or antigen-binding fragment thereof is labeled with a label selected from the group

consisting of a radioisotope, spin label, antigen label, enzyme label, fluorescent group and chemiluminescent group.

34. (Currently amended) The method according to Claim 29 [[28]], wherein the agent is an antibody having specificity for a mammalian CC-chemokine receptor 4 (CCR4) or antigen-binding fragment thereof.

35. (Canceled)

36. (Currently amended) The method according to Claim 38 [[35]], wherein the ligand is a chemokine.

37. (Canceled)

38. (Currently amended) A method of inhibiting leukocyte trafficking in a patient, comprising administering to the patient a composition comprising an effective amount of an antibody or antigen-binding fragment thereof which binds to a mammalian CC-chemokine receptor 4 (CCR4) or portion of said receptor and inhibits binding of a ligand to the receptor, ~~The method according to Claim 35,~~ wherein the antibody or antigen-binding fragment thereof is selected from the group consisting of:

a) monoclonal antibody 1G1;

b) an antibody which can compete with 1G1 for binding to mammalian CC-chemokine receptor 4 (CCR4);

c) monoclonal antibody 2B10;

d) an antibody which can compete with 2B10 for binding to mammalian CC-chemokine receptor 4 (CCR4);

e) monoclonal antibody 10E4;

f) an antibody which can compete with 10E4 for binding to mammalian CC-chemokine receptor 4 (CCR4);

g) an antigen-binding fragment of any of (a) through (f) which binds to mammalian CC-chemokine receptor 4 (CCR4) or a portion thereof; and

h) combinations of the foregoing.

39-43. (Canceled)

44. (Original) The 10E4 hybridoma cell line deposited under ATCC Accession No. PTA-1203.

45. (Previously presented) A monoclonal antibody produced by the 10E4 hybridoma cell line deposited under ATCC Accession No. PTA-1203 or an antigen-binding fragment thereof.

46. (Currently amended) The antibody or antigen-binding fragment thereof according to Claim 5 [[6]], wherein the chemokine is TARC or MDC.

47. (Currently amended) The method according to Claim 18 [[17]], wherein the chemokine is TARC or MDC.

48. (Currently amended) The method according to Claim 27 [[26]], wherein the chemokine is TARC or MDC.

49. (Currently amended) The method according to Claim 36 [[37]], wherein the chemokine is TARC or MDC.